CLAIMS

1. A silicon epitaxial wafer having an excellent gettering capability in the entire radial direction thereof, wherein density of oxide precipitates detectable in the interior of a silicon single crystal substrate after epitaxial growth is $1\times10^9/cm^3$ or higher at any position in the radial direction.

2. The silicon epitaxial wafer according to claim 1, wherein the silicon single crystal substrate prior to the epitaxial growth has Grown-in precipitation nuclei formed in a growth step for silicon single crystal, and when the silicon single crystal substrate is heat treated in an oxidizing atmosphere, stacking faults in the form of a ring are not generated.

3. The silicon epitaxial wafer according to claim 1 or 2, wherein the silicon single crystal substrate prior to the epitaxial growth is a boron-doped substrate having resistivity of 0.1 Ω·cm or lower.

4. A process for manufacturing a silicon epitaxial wafer having an excellent gettering capability in the entire substrate comprising the steps of:

heat treating a substrate for growing Grown-in precipitation nuclei; and thereafter,

performing epitaxial growth on the substrate,

wherein there is used as the substrate a silicon single crystal wafer which has Grown-in precipitation nuclei formed in a growth step for silicon single crystal, and in which stacking faults in the form of a ring are not generated in a heat treatment in an oxidizing atmosphere.

5. The process for manufacturing a silicon epitaxial wafer according to claim 4, wherein the substrate is a boron-doped substrate having resistivity

of 0.1 Ω·cm or lower.